

## **U.S. Based Collaboration In Emerging Viral and Prion Diseases**

The Division of Microbiology and Infectious Diseases (DMID), of the National Institute of Allergy and Infectious Diseases, NIH has a requirement to award several contracts to address the threat of emerging viral and prion diseases.

The use of interactive research units focused on a specific need has proven to be a successful model that serves as both a responsive infrastructure capable of rapidly implementing new activities and a mechanism to provide cross-fertilization of ideas. The Request for Proposals (RFP) is being designed around this model to support interactive research on emerging viral diseases.

NIAID intends to establish several multi-disciplinary research units/contracts to develop and evaluate the scientific information and tools needed by the Government to control emerging viral and viral-like diseases. The units will conduct collaborative, interactive, interdisciplinary research. The units must be capable of quick response to threats posed by emerging diseases. Two or more units will provide the capability to address scientific questions arising from the emergence of viral pathogens, such as the flaviviruses West Nile and Dengue. In addition one or more units will focus on the emergence of viral-like prion agents typified by those associated with infectious neurologic diseases such as transmissible spongiform encephalopathies (TSE) in both humans and animals.

Those units dealing with conventional viruses must develop and maintain the capacity to quickly study new threats from emerging viruses and provide needed information in the areas of general virology, viral immunology, viral pathogenesis, and epidemiology of these agents. These units must demonstrate the ability to perform field studies to define the natural cycling of the virus in the environment. They should include experts in the study of arthropod-borne vectors and enzootic amplifying hosts. The capability to work on these agents will be demonstrated by establishing and maintaining a successful research program providing needed scientific information on viruses that have already emerged, particularly flaviviruses such as Dengue and West Nile viruses. An additional capacity to be developed by these units is the ability to analyze new, environmentally sound vector control tools and other strategies needed to intervene in the emergence and spread of arthropod-borne infectious diseases.

One or more units will focus on unconventional viral-like agents, primarily prions associated with infectious neurologic diseases such as transmissible spongiform encephalopathies (TSE) in both humans and animals. Laboratory studies show that there is a strong barrier to inter-species infection by TSE-associated prions. Nevertheless, the actual risk to humans posed by TSE-affected cattle or other animals remains unknown. In the U.S., there have been no documented cases of TSE in cattle, but other prion diseases are endemic in several western states. These units will determine factors effecting intra-species transmission of TSEs to humans and potential interventions for prevention or treatment of disease.

In the event of a public health threat, each unit will be required to respond by re-direction of its program. Therefore, it is envisioned that these units will implement, staff and maintain coordinated groups that can provide information needed to enhance the U.S. capacity to better predict, prevent, treat and control emerging viral diseases.

Studies envisioned include key elements of: the natural history and epidemiology of the agent, its replication and evolution, and its pathogenesis in animal and human hosts. This information would be used to develop and test prediction, prevention and control strategies utilizing newly developed public health tools such as vaccines and antiviral therapeutics.

A competitive request for proposals (RFP) NIH-NIAID-DMID-02-24 entitled “U.S. Based Collaboration In Emerging Viral and Prion Diseases “ will be available electronically on or about November 16, 2001 and may be accessed through the NIAID Contract Management Branch (CMB) Homepage by using the following electronic address and instructions: Navigate to the NIAID-CMB Homepage via the World Wide Web at <http://www.niaid.nih.gov/contract> Once at the NIAID-CMB Homepage, click the CURRENT RFPs link and then click the RFP NIH-NIAID-DMID-02-24. Proposals in response to this RFP will be due on or about February 15, 2002. These contracts are anticipated to be of the cost-reimbursement-completion type and may be awarded for up to seven (7) years duration, each beginning approximately September 27, 2002. Any responsible Offeror may submit a proposal, which will be considered by the Government. This advertisement does not commit the Government to award any contracts. The NIAID point of contact is Paul D. McFarlane, Contracting Officer, CMB, DEA, NIAID, NIH, phone, 301-496-0349, e-mail [pm24v@nih.gov](mailto:pm24v@nih.gov)